



UNIVERSITY OF HAWAII SYSTEM

‘ŌNAEHANA KULANUI O HAWAII

Legislative Testimony

Hō'ike Mana'o I Mua O Ka 'Aha'ōlelo

Testimony Presented Before the
Senate Committee on Agriculture and Environment
Senate Committee on Higher Education
Tuesday, February 14, 2023 at 3:07 p.m.

By

Anna Wieczorek, Interim Dean
College of Tropical Agriculture and Human Resources

And

Michael Bruno, Provost
University of Hawai'i at Mānoa

SB 646 – RELATING TO ORNAMENTAL GINGER

Chairs Gabbard and Kim, Vice Chairs Richards and Kidani, and Members of the Senate Committee on Agriculture and Environment and Senate Committee on Higher Education:

Thank you for the opportunity to provide testimony in support of SB 646 which provides funding to continue studying the diseases affecting ornamental ginger on O'ahu and the neighbor islands.

Ornamental ginger is a valued plant that can be used as a shrub or as a cut flower. The College of Tropical Agriculture and Human Resources' scientists have been able to identify three different viruses and one fungal pathogen that are infecting ornamental ginger. In addition, the Hawai'i Department of Agriculture (HDOA) experts have established the existence of fourteen additional pathogens.

What has been achieved so far is as follows:

- The islands of O'ahu, Kaua'i, Maui and Hawai'i have been surveyed multiple times in order to document the magnitude and spread of the decline. This has resulted in the discovery of two new viruses never before identified.
- Symptoms have been characterized based on visual identification and genetic sequencing. Symptom categorization has been presented to stakeholders.
- Virus-free plants have been identified and a quarantine facility was built to house them at Komohana Research and Extension Center.
- Virus-free plants were given to Hawai'i Agriculture Research Center, who received a small amount of funding to trial tissue culture experiments.
- The impact of co-infection by two dominant viruses is being investigated.
- Vectors of the viruses are being investigated. While not definitive, mealy bugs and aphids are suspected. More investigation is required.

- It is still unclear which viruses, and how the presence of co-infections can explain the dieback. More investigation is required.
- An Extension publication was produced outlining the current information and the research publication is ready for submission.
- Outreach efforts with HDOA and industry groups continue. More is required.

Additional funding would promote the better understanding and mitigation of the disease and allow for:

- The production of tissue-cultured virus-free ginger plants.
- Mass virus-free tissue culture production.
- With farmer collaborators the development of virus-free stock plant production.
- Development of a research plot to determine how quickly virus-free plants can get infected and the growth yield differences between virus and non-virus plants.
- More laboratory diagnostics would need to occur to support above points.
- Outreach programs would occur on each island when tissue cultured plants are available.
- Continued experimentation with the virus with respect to mitigation including vectors and major causal agents.
- Continued survey of the extent and spread continue to be needed.

Thank you for the opportunity to submit testimony in support of SB 646 provided that its passage does not replace or adversely impact priorities as indicated in our Board of Regents Approved Budget.



THE SENATE
KA 'AHA KENEKOA

THE THIRTY-SECOND LEGISLATURE
REGULAR SESSION OF 2023

COMMITTEE ON HIGHER EDUCATION

Senator Donna Mercado Kim, Chair
Senator Michelle N. Kidani, Vice Chair

COMMITTEE ON AGRICULTURE AND ENVIRONMENT

Senator Mike Gabbard, Chair
Senator Herbert M. "Tim" Richards, III, Vice Chair

Tuesday, February 14, 2023 3:07 PM
Conference Room 229 & Videoconference
State Capitol
415 South Beretania Street

RE: HB646 RELATING TO ORNAMENTAL GINGER

My name is Eric S. Tanouye and I am the President for the Hawaii Floriculture and Nursery Association. HFNA is a statewide umbrella organization with approximately 300 members. Our membership is made up with breeders, hybridizers, propagators, growers, shippers, wholesalers, retailers, educators, and the allied industry, which supports our efforts in agriculture.

The Hawaii Floriculture and Nursery Association (HFNA) **STRONGLY SUPPORTS Senate Bill 646**

Ornamental ginger is a popular tropical flower that could be considered to be a symbol of the beauty of Hawaii. For our Nurserymen and women to continue to grow and provide this product it is important we find solutions to the pathogens that threaten the ornamental ginger and avoid the spreading of these viruses to growers statewide. Currently there is no cure for infected

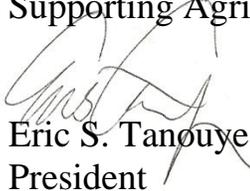


plants and the best option would be to have virus free gingers available for our industry.

An important way to combat these threats is to have and share the knowledge with growers on how to contain this virus through best management practices. We ask that you support our industry and agriculture by supporting these efforts for statewide research into pathogens, production and distribution of pathogen-free ornamental ginger plants and outreach to our ornamental producers.

If you have any questions at this time, I would be happy to discuss them and can be reached by phone at 808-959-3535 ext 22, cell 960-1433 and email eric@greenpointnursery.com.

Supporting Agriculture and Hawaii,



Eric S. Tanouye
President

Hawaii Floriculture and Nursery Association



EAST OAHU COUNTY FARM BUREAU
910 CALIFORNIA AVE., WAHIAWA, HI 96786

February 11, 2023

Senator Donna Mercado Kim, Chair and Senator Michelle N. Kidani, Vice Chair
Senate Committee on Higher Education
Senator Mike Gabbard, Chair and Senator Herbert M. "Tim" Richards III, Vice Chair
Senate Committee on Agriculture and Environment
State Capitol, 415 S. Beretania St.
Honolulu, Hawai'i 96813

Dear Chairs Kim and Gabbard, Vice Chairs Kidani and Richards, and Members of the Committees,

The East O'ahu County Farm Bureau, which represents approximately 420 farmers and supporters of agriculture from Waimanalo to Kahuku, **strongly supports SB 646**, "Relating to Ornamental Ginger," which would provide funding to the University of Hawai'i for research and prevention of the spread of ornamental ginger pathogens.

As the bill's preamble mentions, an emerging disease of red ginger has devastated fields of this valuable ornamental plant in Windward O'ahu. Growers on other islands are concerned that the disease could spread to their operations. CTAHR researchers have followed up their initial research by proposing to develop strategies for mitigating the new disease and to collaborate with the Hawai'i Agriculture Research Center to produce virus-free plants so that growers can replant with clean stock, but funding is needed to support this effort. We respectfully request that your committee approve the appropriation proposed by SB 646, so that Hawai'i's farmers can continue to grow this beautiful tropical flower.

Thank you for the opportunity to testify on this matter of great importance to Hawai'i's ornamental growers.

Sincerely,

Frederick M. Mencher
for Grant Hamachi, President
East O'ahu County Farm Bureau



February 10, 2023

Senator Donna Mercado Kim, Chair
Senator Michelle N. Kidani, Vice Chair
Senate Committee on Higher Education

Senator Mike Gabbard, Chair
Senator Herbert M. "Tim" Richards, III, Vice Chair
Senate Committee on Agriculture and Environment

**Testimony in Support of SB 646, Relating to Ornamental Ginger
(Appropriates funds for statewide research into ornamental ginger
pathogens, prevention of the spread of ornamental ginger pathogens,
production and distribution of pathogen-free ornamental ginger plants,
and outreach to ornamental ginger producers.)**

**Tuesday, February 14, 2023, 3:07 p.m.; State Capitol, Conference Room 229
& Videoconference**

The Land Use Research Foundation of Hawaii (LURF) is a private, non-profit research and trade association whose members include major Hawaii landowners, developers, and utility companies. LURF's mission is to advocate for reasonable, rational, and equitable land use planning, legislation and regulations that encourage well-planned economic growth and development, while safeguarding Hawaii's significant natural and cultural resources, and public health and safety.

LURF appreciates the opportunity to express its **support of SB 646**.

SB 646. This bill proposes to make an appropriation to the University of Hawaii (UH) for statewide research of pathogens affecting ornamental ginger and prevention of pathogen spread.

LURF's Position. Invasive species such as insects, disease-bearing organisms, snakes, weeds, and other pests pose the greatest threat to Hawaii's economy, tourism, agriculture, the natural environment, native species and to the health and lifestyle of Hawaii's people.

Invasive species already cause millions of dollars in crop losses, the extinction of native species, the destruction of native wet, moist, and dry land forests, and the spread of disease, but even more harmful viral, fungal, and bacterial pathogens, including two viruses never before identified, are causing devastating crop decline in ornamental ginger most prevalently on Oahu and Hawaii Island, but threaten to invade all of the Hawaiian Islands and wreak further damage. LURF understands that virus-infected plants cannot be cured and are currently the main plants being propagated for more plantings, thus worsening the problem, and that most large-scale operations have virus-infected plants.

Despite efforts by the UH college of tropical agriculture to study and address this critical situation, more statewide research and a multi-agency outreach approach is necessary to avoid further damage to the profitability and long-term sustainability of local ornamental ginger, as well as other flora and landscape production industries.

For the above reasons, LURF **supports SB 646** and respectfully urges your favorable consideration.

Thank you for the opportunity to present testimony regarding this matter.



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February 14, 2023

HEARING BEFORE THE
SENATE COMMITTEE ON AGRICULTURE AND ENVIRONMENT
SENATE COMMITTEE ON HIGHER EDUCATION

TESTIMONY ON SB 646
RELATING TO ORNAMENTAL GINGER

Conference Room 229 & Videoconference
3:07 PM

Aloha Chairs Gabbard and Kim, Vice-Chairs Richards and Kidani, and Members of the Committees:

I am Brian Miyamoto, Executive Director of the Hawai'i Farm Bureau (HFB). Organized since 1948, the HFB is comprised of 1,800 farm family members statewide and serves as Hawai'i's voice of agriculture to protect, advocate and advance the social, economic, and educational interests of our diverse agricultural community.

The Hawai'i Farm Bureau supports SB 646, which appropriates funds for statewide research into ornamental ginger pathogens, prevention of the spread of ornamental ginger pathogens, production and distribution of pathogen-free ornamental ginger plants, and outreach to ornamental producers.

Alpinia purpurata, known commonly as ornamental ginger, is a popular plant that is commonly used in tropical landscape designs. Commercial production of ornamental ginger has been on the decline for over a decade on Oahu. Red ginger growers in Windward Oahu have recently experienced a further decline in the growth of their ornamental red ginger plant production due to a variety of unknown viruses and fungi

Producers in the affected areas are excavating their lands as they can no longer economically produce ornamental ginger in these areas. Neighboring farmers and off-island customers are concerned about the spread of pathogens. Reports of crop decline which originally started in the Kahaluu area of Oahu have spread to surrounding areas such as Waihole and Waikane Valley.

In response, researchers and extension agents at CTAHR performed a statewide survey and causal agent identification study. The study determined that a combination of six viruses, including two viruses never before identified, is the cause of the red ginger decline, with other pathogens and ornamental ginger genetic variation as possible contributing factors. The viruses are found statewide but are most prevalent on Oahu and Hawai'i Islands. Virus-infected plants cannot be cured, and virus-infected plants are

currently the main plants being propagated for more plantings, worsening the problem. Most large-scale operations have virus-infected plants.

Without more research and prevention protocols through a multi-agency outreach approach, these pathogens could spread further and impact the profitability and long-term sustainability of the local ornamental and landscape production industries.

Thank you for the opportunity to testify on this important subject.

SB-646

Submitted on: 2/13/2023 11:22:18 AM

Testimony for AEN on 2/14/2023 3:07:00 PM

Submitted By	Organization	Testifier Position	Testify
Randy Cabral	Individual	Support	Written Testimony Only

Comments:

Strong support

SB-646

Submitted on: 2/13/2023 11:33:33 AM

Testimony for AEN on 2/14/2023 3:07:00 PM

Submitted By	Organization	Testifier Position	Testify
Jimmy Gomes	Individual	Support	Written Testimony Only

Comments:

I support SB 646 for appropriate funding to UofH for statewide research and prevention of pathogens.

SB-646

Submitted on: 2/13/2023 11:55:58 AM

Testimony for AEN on 2/14/2023 3:07:00 PM

Submitted By	Organization	Testifier Position	Testify
J Ashman	Individual	Support	Written Testimony Only

Comments:

STRONG SUPPORT

Please **support SB 646**, to appropriate funds to UH CTAHR to study diseases affecting the production of ornamental red ginger, a popular plant that is used in tropical landscape designs. A variety of unknown viruses and fungi are devastating the farming of this plant and the farmers who grow it.

Without more research and prevention protocols these pathogens could spread further and impact the sustainability of the local ornamental and landscape production industries.

Thank you for your support.

SB-646

Submitted on: 2/13/2023 12:25:29 PM

Testimony for AEN on 2/14/2023 3:07:00 PM

Submitted By	Organization	Testifier Position	Testify
Russell Galanti	Individual	Support	Remotely Via Zoom

Comments:

I am a CTAHR extension agent that has worked on the red ginger decline issue since 2019. I have watched as we have lost over half of the red ginger producers across the state, most likely caused partially or fully by the viruses affeting red gingers. We have found 2 viruses that are new to science. These viruses could also spread to plants related to ginger like banana and edible ginger. Red ginger shares multiple viruses with banane already. This funding will help resolve the issue by allowing CTAHR to produce virus free plants for the industry, and to study the nature of the viruses currently known. Without this funding the red ginger industry will most likely continue to decline.